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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,361	08/13/2001	Min-Ho Lim	1630-0126P	4558

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EXAMINER

GUHARAY, KARABI

ART UNIT PAPER NUMBER

2879

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/927,361

Applicant(s)

LIM, MIN-HO

Examiner

Karabi Guharay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on RCE, filed on 01/05/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5 is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/05/04 has been entered.

Amendment, filed on 10/03/03 has been entered.

Amendments of claim 1 overcome the rejection of claims 1-4 under 35 U.S.C 112 first paragraph as well as second paragraph, presented in final rejection.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Robbins (US 4631440).

Regarding claim 1, Robbins discloses a color CRT (Fig 1) comprising a panel (18) having a luminous screen (phosphor pattern 19, 20, 21) on an inner surface thereof, a funnel portion connected to the panel, an electron gun (12, 13, 14) mounted on a neck portion of the funnel, electron gun emitting electron beams (15, 16, 17) towards the luminous screen, a shadow mask (22) disposed in a fixed interval to the

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luminous screen, a frame for supporting mask (see Fig 1), shadow mask includes an effective surface having plurality of the slots and a non-effective surface surrounding the effective surface (lines 46-62 of column 2), wherein slots includes first slots (33a, 34a, 33b, 34b, of Fig 3) comprising each outermost slot of adjacent vertical columns of slots in a vertical axis direction of the effective surface of the shadow mask, (along top edge 120, Fig 2), a horizontal row of second slots being adjacent to first slots in the vertical axis direction (Y-axis) and third slots being adjacent to second slots in the vertical axis direction and fourth slots being full or perfect slot adjacent to third slots in the vertical axis direction (see Fig 3) wherein smooth screen edge (top line 120) are obtained for the effective surface of the shadow mask at a length of the vertical axis direction of the first slots (33a, 34a, 33b, 34b) between a range of 70% -110% of the vertical length of the fourth slots (here fourth slots are all full length slot 33, where as some of the length of the first slots (33a) are equal to full length of the slot 33, which is 100%, and slots 34a and 34b are with in 50-80% of full length, thus vertical length of the first slot is within 70%-110%).

Regarding claim 2, Robbins discloses that the length of the vertical axis direction of the second slots (second slots are all full length slots 33) is in the range of 70% ~ 110% of a length of the fourth slots (in this case 100%).

Regarding claim 3, Robbins discloses that the length of the vertical axis direction of the third slots (third slots are all full length slots 33) is in the range of 70% ~ 110% of a length of the fourth slots (in this case 100%).

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Regarding claim 4, Robbins discloses that a minimum length of the vertical axis direction of the first slot (partial slot 34) is more than 63% of the maximum length of the vertical axis direction of the first slot (full length slot 33). See claim 3 of column 4.

***Allowable Subject Matter***

Claim 5 is allowed over the prior art of record.

***Examiner's Reasons for Allowance***

The following is an examiner's statement of reason for allowance: The prior art of record neither shows nor suggests a color cathode ray tube comprising all the limitations set forth in claim 5, particularly comprising the limitation of all of the first slots having an outer edge portion thereof connected to and extending from an edge of the effective area of the shadow mask.

***Response to Arguments***

In response to applicant's argument regarding rejection of claims under 35 U.S.C 102 (b) rejection, first of all examiner fully agrees with applicant that effective range of Robbins is much narrower than the claimed range, and Robbins does not have first slot which is 110% of the fourth slot.

However, in this case prior art range is within the claimed range. Some of the first slots are 100% of the fourth slots and some are within 50% to 80%, thus teaches slots from 70% to 100% of the fourth slot. Robbins clearly teaches that by making some slots about 70% or 80% and some slots 100% of the fourth slot provides a smooth screen edge of the shadow mask. However, a specific example of prior art falling within the claimed range anticipates the range. See MPEP 2131.03.


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***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is (571) 272-2452. The examiner can normally be reached on Monday-Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

  
Karabi Guharay  
Patent Examiner  
Art Unit 2879